



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/759,227

01/20/2004

Young-Pyo Lee

1793.1129

6461

21171 7590 09/10/2007
STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

GOMA, TAWFIK A

ART UNIT

PAPER NUMBER

2627

MAIL DATE

DELIVERY MODE

09/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/759,227

Applicant(s)

LEE ET AL.

Examiner

Tawfik Goma

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2007 and 13 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This action is in response to the amendment filed on 2/28/2007 and the response filed on 8/13/2007. The mistake regarding the document number of the Aoyama reference is acknowledged and corrected with this action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Noda et al (US 5600621).

Regarding claim 9, Noda discloses an optical pickup used to record information on and/or reproduce information from an optical recording medium (fig. 1), the optical pickup comprising: an optical module to emit a light beam toward optical components for irradiating the emitted light to the optical recording medium (fig. 2 and col. 4 lines 37-57); and a front photo-detector to monitor power of the light beam (19, fig. 2); wherein the optical module is coupled to the front photo-detector so that a fixed distance is maintained between the optical module and the front photo-detector in a direction of the optical components irradiating the emitted light to the optical recording medium (19, fig. 2 and col. 4 lines 25-31).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noda et al (US 5600621) in view of Aoyama et al (US 6577585).

Regarding claim 1, Noda discloses an optical pickup used to record information on and/or reproduce information from the optical recording medium (fig. 1), the optical pickup comprising: a first optical module (fig. 2); an objective lens to focus a first light beam emitted from the first optical module on the optical recording medium (8, fig. 1); and a first front photo-detector to monitor power of the first light beam emitted from the first optical module (19, fig. 2 and col. 2 lines 38-54) toward optical components to irradiate the optical recording medium (fig. 2 and col. 4 lines 37-57); wherein the first optical module is coupled to the first front photo-detector to be installed on the pickup base (fig. 2). Noda is silent with respect to the optical pickup being mounted on a pickup base moving relative to an optical recording medium. In the same field of endeavor, Aoyama discloses mounting an optical pickup on a movable base (fig. 3). It would have been obvious to one of ordinary skill in the art to mount the pickup on a movable base as taught by Aoyama. The rationale is as follows: One of ordinary skill in the art would have been motivated to provide a movable base in order to perform tracking operations with respect to different areas on the disc.

Regarding claim 2, Noda further discloses a first collimating lens between the first optical module and the objective lens to transform the first light beam into a parallel beam (3, figs 1 and 2); wherein the first front photo-detector is provided between the first optical module and the first collimating lens (19, fig. 2).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noda et al (US 5600621) in view of in view of Aoyama et al (US 6577585) and further in view of Ophey (US 5500846).

Regarding claim 3, Noda further discloses wherein the first optical module comprises: a light source to emit the first light beam (1, fig. 2) and a main photodetector for receiving the signal light (13, fig. 1). Noda in view of Aoyama fail to disclose wherein the module holds a main photo-detector to receive the first light beam after being reflected from the optical recording medium to detect an information signal and/or an error signal. In the same field of endeavor, Ophey discloses a module that holds both a monitor detector and a main photo-detector (12, fig. 5). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the module disclosed by Noda in view of Aoyama by integrating a main photodetector as taught by Ophey. The rationale is as follows: One of ordinary skill in the art at the time of the applicant's invention would have been motivated to provide the main photodetector in the same module in order to make the pickup more compact.

Claims 4-8 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Noda et al (US 5600621) in view of Aoyama et al (US 6577585) and further in view of Takahashi (US 5991255).

Art Unit: 2627

Regarding claim 4, Noda in view of Aoyama fail to disclose a second optical module to emit a second light beam, wherein the first and second light beams have different wavelengths. In the same field of endeavor, Takahashi discloses using two light sources in an optical pickup (2a, 2b, fig. 7 and col. 4 lines 51-67). It would have been obvious to one of ordinary skill in the art to modify the pickup disclosed by Noda in view of Aoyama by providing two light sources as taught by Takahashi. The rationale is as follows: One of ordinary skill in the art at the time of the applicant's invention would have been motivated to provide two light modules in order to record/reproduce from both a CD and DVD type disc.

Regarding claim 5, Takahashi further discloses wherein one of the first and second light beams has a first wavelength so as to record information on and/or reproduce information from a digital versatile disc, and the other one of the first and second light beams has a second wavelength so as to record information on and/or reproduce information from a compact disc (col. 4 lines 51-67).

Regarding claim 6, Takahashi further discloses wherein one of the first and second light beams has a wavelength of approximately 650 nm, and the other of the first and second light beams has a wavelength of approximately 780 nm (col. 4 lines 51-67).

Regarding claim 7, Takahashi further discloses a first collimating lens between the first optical module and the objective lens (4a, fig. 7); and a second collimating lens between the second optical module and the objective lens (4b, fig. 7). In the combination of Noda, Aoyama and Takahashi, the laser light sources of Takahashi are the modules disclosed by Noda such that a second front photo-detector to monitor power of the second light beam is provided; wherein the first front photo-detector is provided between the first optical module and the first

Art Unit: 2627

collimating lens (19, fig. 2), and the second front photo-detector is provided between the second optical module and the second collimating lens (see fig. 7 configuration of Takahashi). It would have been obvious to one of ordinary skill in the art to provide a second module with the same configuration as the first module as the second light source. The rationale is as follows: One of ordinary skill in the art would have been motivated to provide the second module in order to monitor the power of the second wavelength light.

Regarding claim 8, Noda further discloses wherein the second optical module is coupled to the second front photo-detector to be installed on the pickup base (fig. 2).

Claim 10 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Noda et al (US 5600621) in view of Yokoyama (US 5161040).

Regarding claim 10, Noda discloses an optical pickup used to record information on and/or reproduce information from an optical recording medium (fig. 1), the optical pickup comprising: an optical module to emit a light beam (fig. 2); a front photo-detector to monitor power of the light beam (19, fig. 2); and a collimating lens to transform the light beam into a parallel beam (3, figs. 1 and 2); wherein the optical module and the front photo-detector are formed as a single unit (fig. 2), with the front-detector being between the optical module and the collimating lens to partially block light irradiated toward the collimating lens (fig. 2 and col. 4 lines 37-57). Noda fails to disclose wherein the single unit is adjusted so that the optical module is focused on the collimating lens. In the same field of endeavor, Yokoyama discloses an actuator for focusing a laser light on a collimating lens (57, 62, fig. 11). It would have been obvious to one of ordinary skill in the art to modify the pickup disclosed by Noda by providing the actuator disclosed by Yokoyama. The rationale is as follows: One of ordinary skill in the

Art Unit: 2627

art at the time of the applicant's invention would have been motivated to actuate the laser light source in order to adjust the focal distance and shape of a beam in the system.

Response to Arguments

Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tawfik Goma whose telephone number is (571) 272-4206. The examiner can normally be reached on 8:30 am - 5:00 pm.

Art Unit: 2627

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tawfik Goma/
8/27/2007

/William R. Korzuch/
SPE, Art Unit 2627